

MILEX, November 17, 2023

**Attendees:**

Amber Pierdinock-Weed	Emily Holland	Brandy Whitlock	Loretta Spangler
Melissa D'Agostino	Sarah Gilchrist	Robert Miller	Mariette Largess
Chris Drolsum	Jill Burke	Mike Kiel	Sophia Reverdy
TaChalla Ferris	Lisa Sweeney	Jennie Ray	Tannaz Motevalli

**Presentation**

Guest speakers: Sandy Hervieux and Amanda Wheatley, The Rise of AI: Implications and Applications of Artificial Intelligence in Academic Libraries

2019 we started investigating what librarians were doing about AI, not much was found in an environmental scan. What was found was tied to computer science. So, we decided to do surveys! Survey of librarian perceptions, what were their opinions and where they were using AI. Then we began testing questions using existing AIs, SIRI and Google and Alexa, using questions that came in through reference. The pandemic happened and so the student perception survey was put off and adapted to a workshop.

AI learns quickly, but you don't always know which way it's learning.

AI literacy: an understanding of what AI is, what it can do and recognizing what the AI component is doing/could do in what they're doing.

We began trying to identify what was needed to create an AI literacy framework and went through multiple iterations.

As part of the 1<sup>st</sup> attempt we needed to identify the types of literacy: Access, interpret, assess, manage, use. We also needed to identify competencies that a framework would encompass – five were ultimately identified.

To identify a system as artificially intelligent, the computer/system would need to:

- Perceived with world using sensors
- Agents maintain models/representation of the world and use them for reasoning
- Learn from data
- Making agents interact comfortable with humans (a substantial challenge for ai developers)
- Ai applications can impact society both positive and negative ways

Defining moments Long and Magerko, 2020 "as a set of competencies that enables individuals to critically evaluate AI technologies ..."

There is a disconnect between information literacy frameworks and things like ChatGPT and other large language models. The 1<sup>st</sup> model fell short, creating an AI literacy framework is hard.

The 2<sup>nd</sup> attempt began with being AI literate (knowing what it was and a little about how it worked), critically evaluate and participate in the use of AI, experiment with active agent (AI), integrate the tech in your research and workflows, constantly evaluate and interrogate the AI tech.

Conceptual understandings needed for AI usage and literacy: Terminology, opinion, bias/ethics, applications

We based ourselves on Bloom's Taxonomy, you need a base to build on, providing a hierarchy of understanding and literacy around AI. All of the literacy concepts were then based on ACRL's framework for info literacy, which is modular and can be applied in any order.

In a 3<sup>rd</sup> attempt at a framework our 5 competencies were

1. Know the basic principles of AI: establish a base knowledge of artificial intelligence
2. Understand the fundamental differences of AI: different subtypes affect how the tool works and therefore the applications
3. Experiment with tools on a tacit level: users must be willing to engage with a tool for the purpose of expanding their knowledge and yours from the learner standpoint. There are issues of privacy that you need to know and accept
4. Review the outputs and outcomes of AI tools: analyze and critique the products of AI tools and determine the worth of these results. Compare and contrast results of AI art generation tools. We must re enforce this skill in our literacy skills
  - a. Evaluate the impact of AI on a societal level: participate in the large-level discussions on the impact of AI to the broader society. Includes discussions of key ethical considerations. Join a library association's AI discussion forum
5. Engage with AI discourse: stay involved in the conversation by engaging with AI literature, discussion groups, etc. Read articles on AI and the library science field.

It is important to stay current with the conversation and be engaged to keep up our AI literacy framework.

The speakers have been doing a series of workshops breaking AI down into more manageable chunks.

AI Literacy, AI ethics and bias, AI in research. You can do all three or do them as individual modules

Part of what the workshops do is create a common definition of AI for the attendees to facilitate everyone being on the same page:

"Artificial intelligence can be explained as the development of machines to accomplish tasks and reproduce thought processes that are normally seen in humans. This simulation of intelligent behavior is unique from other automations, as it requires the computer to use human reasoning or thinking to perform tasks."

New Beatles song uses AI to help with its creation, but not all AI can be used for this. To use AI properly, to the fullest extent, you need to know what type of AI you're using and how to best prompt it.

For example, ChatGPT is a large language model tool that uses AI (specifically natural language processing) to answer user-generated prompts. Developed by OpenAI using GPT3.5 and 4 and is currently available for public use.

ChatGPT can: respond to text questions, back and forth dialogue, and create content.

Can't: connect to the internet, not a search engine, find current events, provide non-textual responses, no images or videos, provide accurate citations

It can help you: create a paper outline for you to refine and develop, suggest edits to a paper you have written, edit/first draft on tedious emails, unofficial translations, more sophisticated thesaurus, but always be critical of its work

To create a good prompt: provide details, background info, word limit, writing style, document type, understand your context, give examples, refine questions based on the responses – good or bad.

We created an evaluation tool, ROBOT:

Reliability: how reliable is the info shared about the AI

Objective: what is the goal of the AI and of sharing info about

Bias: what bias or ethical issues could be created

Ownership: who owns the tech and has access

Type: what does the AI do?

Some examples to think about:

TikTok: algorithm is working against you and can radicalize you very quickly because it is designed to keep you watching and responding to the things you respond to while using it.

Affectiva: Human Perception AI/Emotion AI detects human emotions from visual expressions and vocal representations. Created by the MIT Media Lab

Opting out/turning off your camera/mic/and not liking or commenting will skew, wildly, what an app shows you. Doing this with any single app will show you how much even the most basic AIs are managing you.

Current scholarly uses of AI

Semantic Scholar: [www.semanticscholar.org](http://www.semanticscholar.org), natural language processing, wanted to move away from Boolean to more natural language searching Semantic Scholar never quite caught on, but it's actually pretty good

Research Rabbit: [researchrabbit.ai](http://researchrabbit.ai), natural language processing, aims to reimagine research to better connect researchers to information without using a search bar. Uses Semantic Scholar and PubMed at the backend.

Elicit: [elicit.com](http://elicit.com), natural language processing. Finds relevant papers based on research questions and showing connections and themes, also uses semantic scholar as its base

CrossRef: machine learning and metadata, similarity check similar to Turnitin. Had a problem with its algorithm flagging papers as plagiarized when they were not

TrendMD: Recommender systems, machine learning and collaborative filtering based on user behavior, using the algorithm to suggest related works by your user, no regulation or oversight so they can bury data or share articles as they desire

We recommend having an AI acknowledgement plan to cover: who will you acknowledge the use of AI to and where (methods results discussion), ethical and privacy concerns, participant data (protect, store and anonymize it), permission to use this AI, acknowledge it in citations, think about whether your experiment and results be reproducible when using AI, who is this AI available to (open access vs. proprietary), what is the level of oversight and verification

How do you teach students to write good prompts? There is a massive guide that lists other guides about AI prompts available online. [URL was lost via autocorrect.](#)

ChatGPT can take phrases seriously. For example, "sounds the same" can result in nonsense but it sounds the same as the phrase in your prompt. When using AI, ambiguous language will often provide wrong answers.

Business meeting

Future dates

Friday, December 8, 2023, 10:30 – 11:00 AM: MILEX Musings Coffee Break, Zoom

Friday, January 26, 2024, 9:30 – 11:30 AM: Winter Meeting, Zoom, Academic Freedom + Academic Librarianship

Friday, February 9, 2024, 10:30 – 11:00 AM: MILEX Musings Coffee Break, Zoom

Friday, March 8, 2024, 10:30 – 11:00 AM: MILEX Musings Coffee Break, Zoom

Friday, April 12, 2024, 10:30 – 11:00 AM: MILEX Musings Coffee Break, Zoom

Friday, April 19, 2024, 10:00 AM – 4:00 PM: Spring Conference, Location TBA, OneShotPlus: Information Literacy Instruction Beyond the Single-Session Model

Friday, May 10, 2024, 10:00 – 10:30 AM: MILEX Musings Coffee Break, Zoom

Friday, June 14, 2024: 1:00 – 3:00 PM: Summer Meeting, Location TBA

Friday, July 12, 2024: 1:00 – 3:00 PM: Summer Meeting, Zoom

Friday, August 9, 2024, 10:30 – 11:00 AM: MILEX Musings Coffee Break, Zoom

Workshopping ideas of AI info lit in our work:

UMD lesson plans on Ghost/hallucination citations from AI

- Worksheet shared
- Often, real person, real publications, but the article is fake but somewhat related, so have students check citations
- When writing a paper requiring sources, it can pull in citations that do not actually relate to the topic but have a single word that the AI thought meant to be good to use. But it had the same fake citations and real citations that could be relevant

Of interest:

Podcast: The Daily, episode Suspicion, cheating and bands: AI hits schools

[https://youtu.be/a65K1S6S-v0?si=ZF5DU8IgN\\_354Z7](https://youtu.be/a65K1S6S-v0?si=ZF5DU8IgN_354Z7)

LibKeyNomad Plugin: It links open source items to library resources, sort of like how Google Scholar says you can find it at your library. <https://thirdiron.com/downloadnomad/>

We need to teach students about how to properly use the tool, it still needs to be their own work. Is this a library job, is it a writing center job? Some of the problems are that students are rewarded for cheating. We need to teach them to see ChatGPT as a tool and know how to use the tool to improve their knowledge and learning. It's a calculator, we need to give them the underpinning concepts so that they can use the calculator appropriately and understand how the answer came about.

- ChatGPT is beginning to learn about scholarly articles and responding to emotional issues/questions.
- ChatGPT is going to encourage bad behavior, how do we help?

Build scenarios that look at the use of ChatGPT to then talk about how the students feel about the usage. How do they use this, and similar tools, ethically and appropriately, how do they feel when it's used inappropriately? Possible scenarios that would have a negative effect on the student, i.e. medical usage and possible bias.

Professors are changing assignments to get critical thinking around the use of AI. Some professors are having conversations with their students about how they developed their ideas after the paper has been turned in. The faculty are looking for guidance about how to teach people to use the tool correctly.

Some jobs are looking for information on how you can use the tool already,

OpenAI is being sued by many writers and artists, it's not going too well since the style cannot be copyrighted. Authors are suing too; their copyrighted works were being used to train the model without permission. There is also a large philosophical discussion going on around whether AI can replace human talent. Part of this has played out with the actors and writers' strike in Hollywood.

'Deepstakes,' <https://www.deepsteaks.ai/>, videos created to show vegans saying they liked meat using AI – weird use of AI but does demonstrate some of the issues around AI, fakes, and online presence.

If you don't keep up with the latest prompt requirements you will not be able to prompt as well, it's a tool you can't stop using without having issues.

One librarian used two different AIs to develop rubric language for a class they were teaching, it saved hours, each AI provided different possible rubric language from the same prompts. Prompts did need to be refined throughout use of the two AIs, but it worked well for getting ready for a new class faster.